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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,773	11/18/1999	RYUICHI KATAYAMA	016778/0398	6370

7590 04/28/2003

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 04/28/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/442,773

Applicant(s)

KATAYAMA, RYUICHI

Examiner

Aristotelis M Psitos

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) 6-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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### DETAILED ACTION

Applicant's response of 3/18/03 has been considered with the following results.

Applicant's election of species a, including linking claim 1 and 16 is noted.

Hence, claims 6-15 are withdrawn from consideration as being drawn to non-elected species.

Claim 2 has been canceled.

### Information Disclosure Statement

The IDS of 3/27/03 has been made of record. It is noted that items 1 & 2 as listed on page 3 thereof have not been supplied. It is also noted that there is no English translation of any of the documents.

### Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 uses/recites w/p; however, neither w or p is defined. The examiner cannot ascertain with any degree of certainty what they are to represent. Applicant's disclosure is not seen to further define such and further explanation is respectfully requested.

As far as the claims recite positive limitations, and as interpreted by the examiner the following rejections are made.

### Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1,3-5 and 16 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Katayama.

Under 102 considerations, Katayama discloses in the optical environment a focusing and tracking system using holographic lens with a staircase profile – note figs. 6a and b for instance.

The examiner interprets the system to provide for both the pp and dp tracking abilities as recited in the wherein clause found in claims 1 and 16.

Alternatively, if applicant can convince the examiner that such is not the case, then the examiner would rely upon the acknowledged prior art as described in the disclosure in the paragraph bridging pages 1 & 2 of the specification for teaching such.

Katayama further discloses with respect to holographic lens, various configurations, note the disclosure starting at col. 6 line 34 for instance. The examiner concludes that the particular formula, relationship as defined in claim 5 is nothing more than an optimization of the holographic lens, and hence an obvious variant – applicant's attention is drawn to *In re Peterson*, 65 USPQ2nd 1379. The motivation for varying the efficiency of the holographic lens is to optimize its construction and hence its interaction

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within the optical system of Katayama and thereby generate appropriate te and fe signals for system performance.

7. Claims 1,3-5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ju et al considered with either the acknowledged prior art, and all with Taniguchi et al.

Ju et al discloses an optical object lens system wherein appropriate reproduced signals are relied upon for the formation of both Te and Fe and data- see the description of the prior art systems as depicted in figures 1,3 and 10. They also teach the use of holographic lens – HOE – in this environment. The examiner concludes that both the dp and pp tracking abilities as well as the focus and data are inherently present.

If applicant can convince the examiner that such is not inherently present, then the examiner would rely upon the acknowledged prior art as discussed on pages 1-2 of the disclosure for such systems.

It would have been obvious to modify the base system of Ju et al with the above teaching from the acknowledged prior art; motivation is to provide for a multi disc optical system (DVD, cd). Furthermore, Ju et al discloses a four level hoe – see figure 2c (prior art).

Although there is no specific mentioning of the profile, in terms of a ratio of w/p, etc., Taniguchi et al teaches in this environment the ability of increasing/maximizing the diffraction efficiency of a holographic lens accordingly – see col. 3 lines 14-45.

It would have been obvious to modify the base system of Ju et al/Ju et al & the acknowledged prior art with the additional teaching from Taniguchi et al, motivation is to increase the diffraction efficiency of the hoe. Again, the examiner considers such ranges as desired parameters to be optimized - see In re Peterson, 65 USPQ 2<sup>nd</sup> 1379.

Claim 16 (method) is met by the combination of Ju et al and the acknowledged prior art without relying upon Taniguchi et al, since the teaching from Taniguchi et al is not necessary for this claim.

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8. Claim 16 is rejected under 35 U.S.C. 102(a/b) as being anticipated by JP 9-245356 and JP 10-269588. The references are relied upon for the reasons presented in the communication of 3/27/03 pages 3 & 4 thereof. It is noted that claim 16 is a method claim, and hence met when the systems of either of the JP documents noted above operate.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 9-245356 & JP 10-269588 disclose the limitations of claims 1,3 and 4; JP 11-238234 discloses the limitations of claims 1 & 3. Katsuma –US 6084710 (figs 3 & 5), Kajiyama et al – US 6181668 (fig. 81), Kim – US 6337841 ((fig. 6), and Komma et al – US 5446565 (fig. 12) could be relied upon as the primary reference, for they all disclose the appropriate optical system with a 4 level hoe.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Any inquiries concerning missing papers/references, etc. must be directed to Group 2600 Customer Services at (703) 306-0377.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

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Aristotelis M Psitos  
Primary Examiner  
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A handwritten signature in black ink, consisting of a series of loops and a long, sweeping line extending downwards and to the right.

AMP  
April 24, 2003